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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,719	07/12/2001	Kazuhiro Saito	35.C15567	1546

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EXAMINER

WU, JINGGE

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/902,719

Applicant(s)

SAITO ET AL.

Examiner

Jingge Wu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 2-6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/1/01, 4/9/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's election with traverse of species III in paper No. 8 is acknowledged. Regarding to Applicant's argument in paper No. 8, Examiner would like to point out that the species II (fig. 15) is directed to an invention that would detect Ink quantity max value point thus defining maximum line in color reproduction region, which claims 1 and 7 are read on. The examiner disagrees with Applicant that claim 1 belongs to species I because none of the limitations of claim 1 seems to be included in the species I. In addition, the two inventions are distinct and none of the elements of claim 1 and claim 7 appear to be similar that put an unreasonable burden to the Examiner. Accordingly, claims 2-6 and 8-10 are now presented for prosecution. Claims 1 and 7 are withdrawn from consideration.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 10 claims "a program" that is directed to non-statutory subject matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5982990 to Condek.

As to claim 2, Condek discloses an image processing method, which creates a table for separating color into color of coloring agent available in an image formation apparatus, characterized in that:

a first line from black to white is defined (col. 7 lines 41-42, col. 7 line 61-col. 8 line 6, note that any two points can define a line, e.g. (000) to (888) defines a line from white to black);

plural second lines from white to primary color (RGB) and secondary color (CMY) are defined (col. 8 line 62-col. 9 line 8, note that specifying of the control points defines the lines);

plural third lines from the primary color (RGB) and the secondary color (CMY) to black are defined (col. 8 lines 9-19); and

the table is created according to the first line the second lines and the third lines (col. col. 7 lines 23-36, col. 11 lines 43-48).

As to claim 3. Condek further discloses a method according to Claim 2, wherein is possible to control ink dyeing points on the first line and the third lines (col. 11 lines 42).

As to claim 4, Condek further discloses a method according to Claim 3, wherein the control of the ink dyeing points is performed on the basis of a manual instruction by a user (fig. 5 50, col. 7 lines 39-54).

As to claim 5, Condek further discloses a method according to Claim 2. wherein a start of dyeing dark coloring agent on the first line, the second lines and the third lines

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is controlled in an image processing method which creates a table of an image formation apparatus (printer) for performing an image formation (printing) using plural coloring agents (inks) having different density for the same color (col. 8 line 48-col. 9 line 28).

As to claim 6, Condek further discloses coloring agent quantity contour line is calculated on the basis of the coloring agent quantity on each side of a plane defined by the plural coloring agents (fig. 5 54, col. 9 line 59-col. 10 line 23).

As to claims 9 and 10 (under examiner's best understanding, it is a computer storage medium storing a computer program), claims are the corresponding Apparatus and computer storage medium claim to claim 1. The discussion are addressed with regard to claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Condek.

Condek discloses 3D interpolation with 6 way interpolations but does not explicitly mention dividing a cube into plural tetrahedrons and the interpolation processing is executed by connecting points having same coloring agent quantity on three sides of each triangle indicating side planes of the tetrahedrons.

Examiner takes Official Notice that those features are notoriously well known in the art.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of tetrahedron interpolation in the method of Condek in order to fulfill the similar color in the plane of the tetrahedron. Doing so would enhance the quality and accuracy of the color formation of the image.

Contact Information

Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Primary Patent Examiner

